

ABSTRACT

A bipolar transistor structure includes a collector region having a first conductivity type formed in a semiconductor substrate. A base region is formed over the collector region; the base region includes a highly doped lower layer having a second conductivity type opposite the first conductivity type formed on the collector region and a relatively low doped (or undoped) upper layer formed on the highly doped lower layer. An emitter region having the first conductivity type is formed on the upper layer of the base region.